

REMARKS

Claims 1-12 are pending in the application. By this Amendment, claims 1, 5 and 9 have been amended and claim 13 has been added. It is submitted that this Amendment is fully responsive to the Office Action dated November 4, 2009.

Claim Rejections - 35 U.S.C. §103

Claims 1-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Takenaka et al. (USP 5,357,433) in view of De Beaucourt et al. (USP 5,421,426) further in view of Nishikawa et al. (USP 5,255,753).

This rejection is respectfully traversed. Independent claim 1, as amended, now recites “*wherein the force sensor includes a sensor axis and the lower sole is supported pivotally movably with the sensor axis of the force sensor.*” Also, independent claims 5 and 9 have been amended to include similar features. This Amendment is supported by, for example, Fig. 4 and the specification (page 10, lines 1-5).

Specifically, in the present application, a sensor axis enables the lower sole to move back and forth, and left and right. In addition, the lower sole 38 has a side wall 38a. Therefore, as described on page 10, lines 5-8 of the specification, “when a foot portion 14L hits a side of a matter on the floor surface, the side wall 38a of the lower sole 38 collides on said matter, transmits its impact strength to the force sensor 36a, which can hence detect said contact.”

In other words, in the present application, before a lifted foot portion hits an obstacle on the floor, a side wall 38a of the lower sole 38 hits the obstacle. At that time, the foot portion does not receive a reaction but the lower sole 38 moves. Detection of the motion of the lower sole 38 causes the correction of the gait data, for example, in order to prevent the foot portion from hitting an obstacle. This gait data correction technique is not disclosed by any of the cited references.

Therefore, none of the cited references discloses or fairly suggests the claimed feature of “*wherein the force sensor includes a sensor axis and the lower sole is supported pivotally movably with the sensor axis of the force sensor,*” as called for in amended claim 1 and similarly in amended claims 5 and 9.

Accordingly claims 1, 5 and 9 patentably distinguish over Takenaka, De Beaucourt and Nishikawa. Claims 2-4, 6-8 and 10-12 are dependent from claim 1, 5 or 9 and recite the additional features set forth therein. Accordingly claims 2-4, 6-8 and 10-12 also patentably distinguish over Takenaka, De Beaucourt and Nishikawa for at least the reasons set forth above.

As to New Claim

The subject matter of claim 13 is supported by, for example, Fig. 4 of the present application. With regard to the feature of providing the force sensor between the upper sole and the lower sole, the Examiner acknowledges the drawbacks and deficiencies of Takenaka and De Beaucourt, that is, both of them do not disclose this feature (please see page 4 of the Action).

In an attempt to cure the above-noted drawbacks and deficiencies of Takenaka and De Beaucourt, the Examiner relies on the teachings of Nishikawa, especially, relies on Fig. 2, upper element 62, lower element 54 and element 50 (page 4 of the Action). However, as shown in Fig. 2 of Nishikawa, the element 50 goes through the upper element 62 of Nishikawa. Accordingly, Nishikawa is silent regarding the feature of "*the force sensor connects the upper sole with the lower sole.*" Therefore, claim 13 patentably distinguishes over Takenaka, De Beaucourt and Nishikawa.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

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Art Unit: 3664

Amendment under 37 CFR §1.111
Attorney Docket No.: 043082

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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